THE CLAIMS

The claims of the application, as amended, are:

1. (Currently Amended) Apparatus for conditioning air and fuel supplied to a combustor, comprising:

first means (5) for electrostatically charging air supplied to a combustor, at a first polarity, the first charging means extending into a first duct (2, 3, 4) through which, in use, air flows to the combustor;

second means (12) for electrostatically charging fuel supplied to such combustor, at opposite polarity to said first polarity, the second charging means extending into a second duct (9, 10, 11) through which, in use, fuel flows to the combustor;

means (15, 19, 20) for preheating such fuel upstream of the first and second charging means; and

an earthed electrode (7, 14) within a duct selected from the first duct and the second duct.

2. (Previously Presented) Apparatus according to claim 1, wherein the apparatus is adapted to charge air at negative polarity and to charge fuel at positive polarity.

3. (Currently Amended) Apparatus according to claim 1, wherein said first means for electrostatically charging air comprises one or more pointed electrodes (5) adapted to be connected to electronic power supply means and extending into the first duct (2, 3, 4).

4. (Previously Presented) Apparatus according to claim 3, wherein the earthed electrode (7) within the first duct (2, 3, 4) is upstream of said pointed electrode(s) (5) in the sense of flow of air through the first duct.

5. (Currently Amended) Apparatus according to claim 1, wherein said second means for electrostatically charging fuel comprises one or more pointed electrodes (12) adapted to be connected to electric power supply means and extending into the second duct (9, 10, 11).

6. (Previously Presented) Apparatus according to claim 5, wherein the earthed electrode (14) within the second duct (9, 10, 11) is upstream of said pointed electrode(s) (12) in the sense of flow of fuel through the second duct.

7. (Canceled) Apparatus according to claim 1, wherein said preheating means (15, 19, 20) are located upstream of said means (12) for electrostatically charging fuel in the sense of flow of fuel to the combustor.

8. (Previously Presented) Apparatus according to claim 1, wherein said preheating means comprise means (15, 19) for preheating such fuel by heat exchange with fluid heated by the combustor.

9. (Previously Presented) Apparatus according to claim 1, wherein said preheating means comprise electrically powered heating means (20).

10. (Previously Presented) Apparatus according to claim 9, wherein said electrically powered heating means comprise an element (20) disposed within the duct (9, 10, 11) through which, in use, fuel flows to the combustor which serves also as said earthed electrode (14).

11. (Previously Presented) Apparatus according to claim 8, wherein control means (21, 22) is provided adapted to operate said electrically powered heating means (20) when said fluid heat exchange means (15, 19) are ineffective to preheat such fuel to a specified temperature.

12. (Previously Presented) A combustor equipped with apparatus according to claim 1 for conditioning air and fuel supplied to the same.

13. (Previously Presented) A combustor according to claim 12 in the form of an internal combustion engine.

14. (Currently Amended) A method of conditioning air and fuel supplied to a combustor, comprising the steps of:

electrostatically charging such air at a first polarity within a first duct (2, 3, 4) by first charging means extending thereinto, through which first duct, in use, air flows to the combustor;

electrostatically charging such fuel at opposite polarity to said first polarity within a second duct (9, 10, 11) by second charging means extending thereinto, through which second duct, in use, fuel flows to the combustor;

providing an earthed electrode (7, 14) within a duct selected from the first duct and the second duct; and

preheating such fuel by means upstream of the first and second charging means.

15. (Canceled)